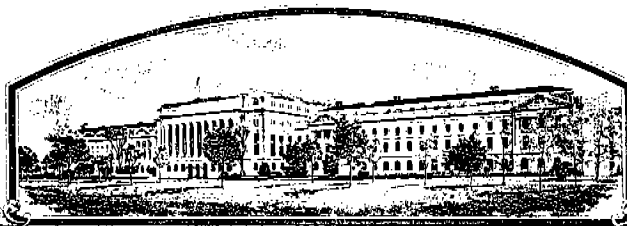


No.



7700076

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

ACCO Seed *CARBILL INC*

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

DDP
8/12/80

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Paymaster 785'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 26th day of January in the year of our Lord one thousand nine hundred and seventy-eight

Attest

L. M. ...

Acting
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

B. B. Berglund
Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY B9-952 Paymaster 952 B9-952-1		1b. VARIETY NAME Paymaster 785		FOR OFFICIAL USE ONLY PV NUMBER 7700076	
2. KIND NAME COTTON		3. GENUS AND SPECIES NAME Gossypium hirsutum		FILING DATE 6-28-77	
4. FAMILY NAME (BOTANICAL) MALVACEAE		5. DATE OF DETERMINATION December 1972		TIME 1:30 P.M.	
				DATE 6-28-77	
				DATE 6-28-77	
				DATE 6-28-77	
6. NAME OF APPLICANT(S) CARGILL, Inc ACCO Seed, a Division of Anderson, Clayton and Company 8/12/80		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 15615 W. MC GINTY RD P. O. Box 1630 MINNETONKA, MINN Plainview, TX 79072 55343		8. TELEPHONE AREA CODE AND NUMBER (806) 652-3312	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) CORPORATION		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION DELAWARE		11. DATE OF INCORPORATION 1929	
12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers: Dr. Delbert C. Hess ACCO Seed P. O. Box 1630 Plainview, TX 79072 (806) 652-3312					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☒ 13D. Exhibit D, Additional Description of the Variety.

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed?
(See Section 83(a). (If "Yes," answer 14B and 14C below.) ☒ YES ☐ NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations?

☒ YES ☐ NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed?

☒ FOUNDATION☒ REGISTERED☒ CERTIFIED

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal?

☒ YES ☐ NO

16. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

(DATE)

(DATE)

ACCO Seed - div. of Anderson Clayton
SIGNATURE OF APPLICANT
R. J. Richardson
1
SIGNATURE OF APPLICANT

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and \$250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, National Agricultural Library, Beltsville, Maryland 20705. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give (1), the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. (2), the details of subsequent stages of selection and multiplication. (3), the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4), evidence of stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties; (1) identify these varieties and state all differences objectively; (2) Attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form for all characteristics, for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe; such as; plant habit, plant color, disease resistance, etc.
- 14A If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

EXHIBIT A

77-76

Origin and Breeding History

Paymaster 785 was developed from a single plant selection from Paymaster 909. The pedigree of Paymaster 909 is: Paymaster 101 x Calif. # 2. The latter strain was developed at the USDA Cotton Field Station at Shafter, California and came from an Acala x Hopi cross. Since Paymaster 785 is significantly different from Paymaster 909 in several respects, it is likely that a chance outcross occurred in Paymaster 909 giving rise to Paymaster 785.

Yield testing of Paymaster 785 began in 1970. Initial seed increases were made during the winter of 1971-1972 in Mexico. The stability of the variety is evidenced by the consistency of the variety to produce relatively short, very coarse fiber and by its essentially equal performance and appearance during the testing stages. Approximately five (5) percent of the plants of early seed lots have had yellow pollen. These may be classified as variants and are obvious when inspecting the plants at flowering time.

77-76

EXHIBIT B

Novelty Statement

Paymaster 785 most closely resembles Paymaster 18. However, Paymaster 785 is novel and is different from Paymaster 18 in that Paymaster 785 (1) is more resistant to Verticillium wilt with Paymaster 18 and Paymaster 785 having shown 41.5 and 24.8 percent wilted plants respectively, when grown in wilt infested soils during the years 1971 through 1976; (2) has a higher lint percent with Paymaster 18 and Paymaster 785 having 35.83 and 39.47 percent lint respectively, when grown in replicated yield trials during the years 1971 through 1976.

7700076

Lint Percents of Paymaster 18 and Paymaster
785 cotton varieties. 1971 - 1976.

	Lint Percent		difference
	PM 785	PM 18	
	38.5	35.6	2.9
	40.8	37.2	3.6
	37.5	34.7	2.8
	37.1	32.9	4.2
	39.0	34.2	4.8
	37.2	32.8	4.4
	38.2	34.7	3.5
	38.3	36.0	2.3
	36.4	32.2	4.2
	42.2	37.8	4.4
	40.6	36.7	3.9
	39.6	35.5	4.1
	40.7	37.0	3.7
	41.2	40.0	1.2
	40.3	36.5	3.8
	41.6	37.9	3.7
	39.0	35.0	3.5
	42.4	37.7	4.7
Average	39.47	35.83	3.65 ^{**} \pm 1.27

Statistical Calculations*

$$s_d^2 = 0.044 \quad s_d = 0.210 \quad t = 17.38^{**}$$

99% confidence limits: $l_1 = 2.38 \quad l_2 = 4.92$

* Data analysed as paired observations. See Steel, R. D. G., and Torrie, J. H.: Principles and Procedures of Statistics. McGraw-Hill Book Co., Inc. New York. 1960. pages 78-79.

7700076

Verticillium wilt scores of Paymaster 18 and
Paymaster 785 cotton varieties. 1971 - 1976.

	Verticillium wilt scores		difference
	PM 18	PM 785	
	35.0	20.0	15.0
	46.7	18.3	28.4
	36.7	22.9	13.8
	18.3	12.5	5.8
	33.3	26.7	6.6
	68.3	40.4	27.9
	45.0	27.0	18.0
	50.0	26.7	23.3
	43.3	35.0	8.3
	38.3	18.3	20.0
Average	41.5	24.8	16.7** \pm 8.38

Statistical Calculations*

$$s_d^2 = 6.94$$

$$s_d = 2.64$$

$$t = 6.33^{**}$$

$$99\% \text{ confidence limits: } l_1 = 8.32 \quad l_2 = 25.08$$

* Data analysed as paired observations. See Steel, R. D. G., and Torrie, J. H.: Principles and Procedures of Statistics. McGraw-Hill Book Co., Inc. New York. 1960. pages 78-79.

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (GOSSYPIUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

ACCO Seed

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

P. O. Box 1630
Plainview, Texas 79072

FOR OFFICIAL USE ONLY

PVPO NUMBER

7700076

VARIETY NAME OR TEMPORARY
DESIGNATION

PAYMASTER 785

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (e.g., 089 or 09) when number is either 99 or less or 9 or less.

1. SPECIES:

1 1 = GOSSYPIUM HIRSUTUM 2 = GOSSYPIUM BARBADENSE

2. AREA(S) OF ADAPTION (0 = Not Tested, 1 = Not Adapted, 2 = Adapted):

0 EASTERN 0 DELTA 0 CENTRAL 2 HIGH PLAINS 0 EL PASO AREA
0 WESTERN LOW HOT VALLEYS 0 SAN JOAQUIN OTHER (Specify) _____

3. MATURITY (50% Open Boll):

0 5 NO. OF DAYS EARLIER THAN 4 } 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
 NO. OF DAYS LATER THAN } 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (Specify) _____

4. PLANT HABIT:

2 1 = SPREADING 2 = INTERMEDIATE 3 = COMPACT 3 1 = FOLIAGE SPARSE 2 = DENSE
3 = OTHER (Specify) Intermediate

5. PLANT HEIGHT:

0 0 CM. SHORTER THAN 4 } 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
 CM. TALLER THAN } 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (Specify) _____

6. MAIN STEM:

3 1 = LAX 2 = ASCENDING 3 = ERECT CM. TO FIRST FRUITING BRANCH NO. OF NODES TO FIRST FRUITING BRANCH
(from cotyledonary node)

7. LEAF:

1 7 CM. WIDTH OF
WIDEST LEAVES
AT MATURITY

8. LEAF PUBESCENCE:

3 1 = GLABROUS (HAIRS AS SPARSE AS D₂ SMOOTH)
2 = SMOOTH LEAF (DELTAPINE SMOOTH LEAF) 3 = PUBESCENT (STONEVILLE 213)
4 = HEAVY PUBESCENCE (H₁ OR H₂) 5 = OTHER (Specify) _____

9. LEAF COLOR:

3 1 = VIRESCENT YELLOW 2 = LIGHT GREEN 3 = DARK GREEN (Acala-442) 4 = RED
5 = OTHER (Specify) _____

10. LEAF TYPE:

1 1 = NORMAL 2 = OKRA 3 = SUPER OKRA 4 = OTHER (Specify) _____

11. FLOWER:

2 1 = NECTARILESS 2 = NECTARIED1 Petals: 1 = CREAM 2 = YELLOW 1 Pollen: 1 = CREAM 2 = YELLOW

12. FRUITING BRANCH TYPE:

3 1 = CLUSTER 2 = SHORT 3 = NORMAL 1 1 = DETERMINATE 2 = INDETERMINATE

13. GOSSYPOL CONDITION:

3 1 = GLANDLESS 2 = REDUCED GLANDS 3 = NORMAL GLANDS 1 1 = NORMAL BUD GOSSYPOL
4 = OTHER (Specify) _____ 2 = HIGH BUD GOSSYPOL

14. SEEDS:

1 3 7 ± 3 0 SEED INDEX 2 Seed Fuzz: 1 = SPARSE (GREGG 35) 2 = MODERATE (DPL-16)
(Fuzzy seed basis) 3 = HEAVY (ACALA SJ-1) 4 = OTHER (Specify) _____

7700076

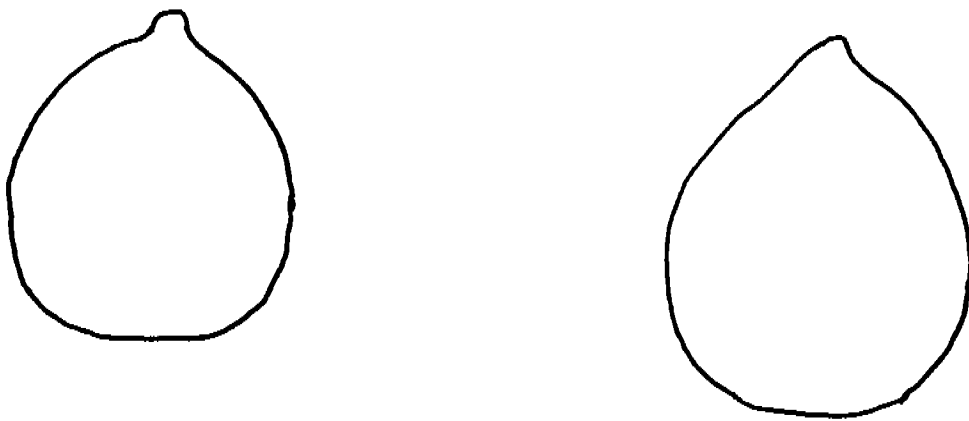
EXHIBIT D

Additional Description of the Variety

The shape of the unopened bolls of Paymaster 785 is indicated by the attached sketch.

Performance data from both Experiment Station and ACCO Seed tests are attached.

7700076



Typical boll shape of Paymaster 785

ASSIGNMENT OF PLANT VARIETY PROTECTION ACT
CERTIFICATES AND APPLICATIONS

WHEREAS, CARGILL, INCORPORATED, including the CARGILL HYBRID SEEDS DIVISION ("CARGILL"), a Delaware corporation with its principal office and place of business at 15407 McGinty Road West, Wayzata, MN 55391, is the owner of the varieties, Plant Variety Protection Act ("PVPA") certificates and application identified below:

PLANT VARIETY PROTECTION CERTIFICATES

<u>VARIETY</u>	<u>CERTIFICATE NO.</u>	<u>ISSUED</u>
Paymaster 784	7700054	January 26, 1978
Paymaster 785	7700076	January 26, 1978
Paymaster 792	7700077	February 2, 1978
PR68	7800104	March 1, 1979
PR75	8000135	November 20, 1980
Paymaster 145	8000080	May 14, 1981
Paymaster 404	8000081	April 16, 1981
7563	8300031	September 29, 1983
Lankart 175	8400153	November 29, 1985
Lankart 511	8600086	November 28, 1986
Lankart 311	8700086	June 30, 1987
Paymaster 892	8900270	November 30, 1990
Paymaster 147	8900269	November 30, 1990
Lankart 142	9000215	April 30, 1991
Paymaster HS26	8600087	June 30, 1992 (amended)
Paymaster HS200	9000216	May 28, 1993 (amended)

PLANT VARIETY PROTECTION APPLICATION

<u>VARIETY</u>	<u>APPLICATION NO.</u>	<u>FILED</u>
Paymaster HS30	9200264	September 14, 1992

WHEREAS, DELTA AND PINE LAND COMPANY ("DELTA and PINE LAND"), a Delaware corporation with its principal office and place of business at 100 North Main Street, Scott, Mississippi is desirous of acquiring said varieties PVPA certificates and application and all rights, title and interest therein;

SDC:rlf 5/01/94 (10157)

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, CARGILL does hereby assign unto DELTA and PINE LAND all rights, title and interest that it may have in and to said varieties PVPA certificates, application and the underlying cottonseed inventions.

This Agreement was executed at Dallas, Texas, on May 2, 1994.

ATTEST:



CARGILL, INCORPORATED

By: Michael J. HallName: MICHAEL J. HALLTitle: CONTROLLER - SEED DIV.

15. BOLLS:

<input type="text" value="2"/> Locules: 1 = 3-4 2 = 4-5	<input type="text" value="2"/> <input type="text" value="9"/> NO. SEEDS PER BOLL	<input type="text" value="3"/> <input type="text" value="9"/> <input type="text" value="3"/> LINT PERCENT	<input type="text" value="3"/> <input type="text" value="9"/> MM. DIAMETER
<input type="text" value="2"/> Pitted: 1 = NONE 2 = FINELY 3 = COURSELY	<input type="text" value="6"/> <input type="text" value="0"/> <input type="text" value="5"/> GRAMS SEED COTTON PER BOLL	<input type="text" value="2"/> Breadth: 1 = BROADER AT BASE 2 = BROADER AT MIDDLE	
<input type="text" value="2"/> Type: 1 = STORMPROOF (WESTBURN 70) 2 = STORM RESISTANT (LANKART 57) 3 = OPEN (DELTAPINE 16)	<input type="text" value="3"/> Shape: 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH		

16. BRACTEOLAS:

<input type="text" value="3"/> Breadth: 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH	<input type="text" value="3"/> Teeth: 1 = 3-4 2 = 5-7 3 = 8-10 4 = OTHER (Specify) _____
<input type="text" value="2"/> Teeth: 1 = FINE 2 = COURSE	

17. YIELD: Compared to—

<input type="text" value="1"/> <input type="text" value="8"/> <input type="text" value="1"/> PERCENT LESS THAN	} 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1 7 = LANKART 57
<input type="text" value="1"/> <input type="text" value="8"/> <input type="text" value="1"/> PERCENT MORE THAN	

18. FIBER LENGTH (Complete one or more of the following and give the means):

<input type="text" value="0"/> <input type="text" value="9"/> <input type="text" value="5"/> SPAN LENGTH 50%	<input type="text" value="0"/> <input type="text" value="9"/> <input type="text" value="5"/> SPAN LENGTH 2.5%	<input type="text" value="0"/> <input type="text" value="9"/> <input type="text" value="5"/> U.H.M. LENGTH
<input type="text" value="3"/> <input type="text" value="0"/> MEAN LENGTH	<input type="text" value="3"/> <input type="text" value="0"/> STAPLE LENGTH 32nd INCHES	
<input type="text" value="4"/> <input type="text" value="7"/> UNIFORMITY RATIO (MEAN/U.H.M.)	<input type="text" value="4"/> <input type="text" value="7"/> UNIFORMITY INDEX (50% SPAN/2.5% SPAN)	

19. FIBER STRENGTH AND ELONGATION:

<input type="text" value="0"/> <input type="text" value="8"/> <input type="text" value="5"/> 1,000 P.S.I.	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> ELONGATION E ₁	<input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="8"/> STILOMETER T ₀
<input type="text" value="4"/> <input type="text" value="1"/> <input type="text" value="5"/> MICRONAIRE READING	<input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="8"/> YARN STRENGTH (Give test method)	<input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="8"/> STILOMETER T ₁

20. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

<input type="text" value="2"/> VERTICILLIUM WILT	<input type="text" value="1"/> FUSARIUM WILT	<input type="text" value="1"/> ROOT KNOT NEMATODE	<input type="text" value="2"/> BACTERIAL BLIGHT (Race 1)
<input type="text" value="2"/> BACTERIAL BLIGHT (Race 2)	<input type="text" value="0"/> ASCOCHYTA BLIGHT	<input type="text" value="0"/> PHYMATOTRICHUM ROOT ROT	<input type="text" value="0"/> RHIZOCTONIA
<input type="text" value="0"/> ANTHRACNOSE	<input type="text" value="0"/> RUST	<input type="text" value="0"/> OTHER (Specify) _____	

21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

<input type="text" value="0"/> BOLL WEEVIL	<input type="text" value="0"/> APHID	<input type="text" value="0"/> FLEAHOPPER	<input type="text" value="0"/> LEAFWORM
<input type="text" value="0"/> FALL ARMYWORM	<input type="text" value="0"/> GRASSHOPPER	<input type="text" value="0"/> LYGUS	<input type="text" value="0"/> PINK BOLLWORM
<input type="text" value="0"/> STINKBUG	<input type="text" value="0"/> THRIP	<input type="text" value="0"/> CUTWORM	<input type="text" value="0"/> SPIDERMIT
<input type="text" value="0"/> OTHER (Specify) _____			

REFERENCES: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (1) Brown, Harry B., and J. O. Ware, 1958, Cotton, McGraw-Hill Book Company, Inc., New York.
- (2) Lewis, C. F., and H. H. Ramey, Jr., 1971, 1970 Regional Cotton Variety Tests, ARS 34-130, United States Department of Agriculture.

COLORS: Nickerson's or any recognized color fan may be used to determine flower color of the described variety.